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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

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**BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

Application Number: 10/521,849
Filing Date: January 21, 2005
Appellant(s): TOLLE ET AL.



Dicran Halajian
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 08 November 2007 appealing from the Office action mailed 28 June 2007.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

Appellants filed on August 28, 2007 an after final amendment in response to a Final Office Action mailed June 28, 2007. The after final amendment did not include any amendments to the claims. In an Advisory Action mailed on September 19, 2007, it is indicated that the after final amendment filed on August 28, 2007 does not place the application in condition for allowance.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

| | | |
|---|---|---|
| 5621636 | Tanigawa et al. | 04-1997 |
| EP 0522475 | Pilniak et al. | 01-1993 |

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-12, 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pilniak [EP 0522475] in view of Tanigawa et al. [5621636]. This rejection is set forth in prior Office Action (28 June 2007).

Regarding claims 1 and 15, Pilniak discloses a conductive plate **11** having an inductive function, which inductive function corresponds to a structure of at least one spiral-shaped slit formed in a single plane in the plate, spiral-shaped slit comprising at least two full 360° loops around a solid center portion **13.1** of the plate located at a center position of the spiral-shaped slit [Abstract, Figure 5a].

Pilniak discloses two full 360° spiral-shaped loops around a *solid center portion,* which is the inner most part of the winding 7a of the plate 11.

Applicant claimed a spiral-shaped slit around a solid center portion but in the specification, page 5, lines 19-24, applicant discloses the metal plate where inductances are produced by means of spiral slits has cut outs 50 to 56 where through magnetic materials project in order to close the magnetic circuit.

Pilniak discloses the instant claimed invention discussed above except for a circuit arrangement in the device.

Tanigawa et al. disclose a device with a circuit arrangement that includes an inductor [Col. 3, Lines 1-9, Figure 2].

It would have been obvious to one having ordinary skill in the art at the time of the invention to use the conductive plate of Pilniak that has an inductive function to the circuit arrangement of Tanigawa et al.

The motivation would have been to provide a thin coil of high inductivity on a thin circuit board to save space for the structure [Col.2, Lines 10-20].

Regarding claims 2 and 16, Pilniak discloses that the structure of slits is formed by at least two spiral-shaped slits [Abstract, Figure 5a].

Regarding claim 3, Pilniak discloses the spiral-shaped slits are provided with a respective contact points in their central region and / or at least one further contact point **4** is arranged adjacent the spiral-shaped slits and /or between the central region and the periphery of a spiral-shaped slit [Figure 5a].

Regarding claims 4 and 5, Tanigawa et al. further disclose a printed circuit board **2**, which supports the circuit arrangement and is electrically coupled to and supports the electrically conductive plate by way of the contact points [Col. 3, Lines 5-10, Figure 2a].

Regarding claim 6, Pilniak discloses an electrically conductive plate **11** that has the function of a plurality of coils, the number of which corresponds to the number of spiral-shaped slits [Claim 1].

Regarding claim 7, Pilniak discloses the electrically conductive plate **11** is formed is formed as a sheet of metal [Abstract].

Regarding claim 8, Tanigawa et al. further disclose an insulating layer is provided between the printed circuit board and the electrically conductive plate [Col. 4, Lines 5-10].

Regarding claim 9, Tanigawa et al. further disclose that a layer of magnetic material **32**, notably a ferrite material, is provided on at least one side of the electrically conductive plate [Col. 3, Lines 5-10, Figure 2a]

Regarding claim 10, Tanigawa et al. further discloses that there is provided an arrangement which comprises two layers of a magnetic material **32a**, **32b** where between the electrically conductive plate is arranged, on one outer side of the arrangement there being

provided a printed circuit board **2** which is electrically coupled to the electrically conductive plate [Col. 3, Lines 3-10, Figure 2a].

Regarding claim 11, Tanigawa et al. further disclose a cooling layer **1** which consist of a suitably thermally conductive material, notably metal, and that components of the device which are to be cooled are arranged between the cooling layer **1** and the printed circuit board **2** [Col. 3, Lines 35-40, Figure 1b].

Regarding claim 12, Tanigawa et al. further disclose that either of the electrically conductive plate or the layer of the magnetic material is used for cooling [Col. 3, Lines 35-40, Figure 1b].

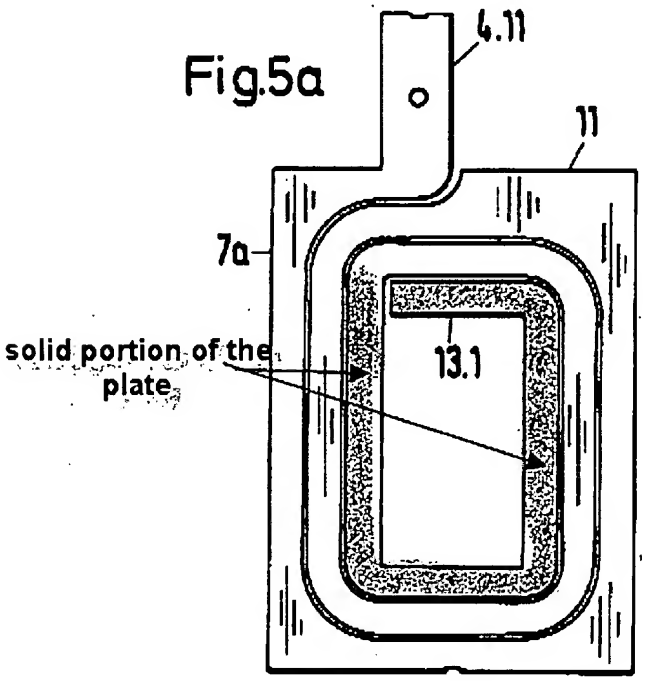
Regarding claims 13 and 14, the recitation of a multi-phase converter in a power supply, they cannot be relied upon to distinguish over the Tanigawa et al. reference because they are seen as intended use (i.e., when the claim is directed to a circuit device, any recitation concerning the environment in which the circuit device is employed is not part of the inventive circuit device). Only structural and functional limitations are given patentable weight.

**(10) Response to Argument**

With regards to claim 1, Appellant argues that the reference Pilniak's "cited end portion 13.1 of the plate is in fact substantially spaced apart from the center portion of the slit and that the central portion of the slit is in fact an opening rather than a solid portion". The examiner

admits that the drawing of Pilniak can be interpreted to show this. However, the scope of the claim language is sufficiently broad to be read so that Pilniak reads on the claim. The reference Pilniak has spiral-shaped slit comprising at least two full 360° loops around a solid portion of the plate located at a center position of the spiral-shaped slit.

Pilniak discloses two full 360° spiral-shaped loops around a *solid center portion,* which is the inner most part of the winding 7a of the plate 11. It is further explained with the help of an annotated Figure of Pilniak (Figure 5a). The annotated figure below shows the shaded portion representing the solid portion of the plate equally distant from around the edges of the plate, putting its location to be in the center position of the spiral-shaped slit.



**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Joselito Baisa

Conferees:

David Blum

Elvin Enad